

Listing and Amendments to the Claims

This listing of claims will replace the claims that were published in the PCT Application:

1. (currently amended) Method for communication between an IC and an external DRAM, where the external DRAM ~~(2)~~ has at least one memory bank ~~(21, 22, 23, 24)~~ and communicates with the IC via two or more channels ~~(6, 7, 8)~~, ~~characterized in that~~ , wherein the transmission of memory bank commands is prioritized on the basis of a static priority allocation for commands and a dynamic priority allocation for channels.
2. (currently amended) Method according to Claim 1, ~~characterized in that~~ wherein the static priority allocation for commands involves a 'Burst Terminate' command being given the highest, a 'Read' or 'Write' command being given the second highest, an 'Activate' command being given the third highest and a 'Precharge' command being given the lowest priority.
3. (currently amended) Method according to Claim 1 ~~or 2~~, ~~characterized in that~~ , wherein the dynamic priority allocation for channels involves a channel ~~(6, 7, 8)~~ being given the lowest priority after an command has been sent.
4. (currently amended) Method according to ~~one of Claims 1 to 3~~, ~~characterized in that~~ Claim 1, wherein the dynamic priority allocation involves one of the channels ~~(6, 7, 8)~~ being given the highest priority in the next clock cycle if it does not have the highest priority in the current clock cycle and another channel ~~(6, 7, 8)~~ sends a command.
5. (currently amended) Method according to ~~one of Claims 1 to 4~~, ~~characterized in that~~ Claim 1, wherein the dynamic priority allocation may involve one of the channels ~~(6, 7, 8)~~ losing the highest priority only when it can send a command.
6. (currently amended) Method according to ~~one of Claims 1 to 5~~, ~~characterized in that~~ Claim 1, wherein the channels ~~(6, 7, 8)~~ access physically separate memory areas in the external DRAM ~~(2)~~.

7. (currently amended) Method according to ~~one of Claims 1 to 5, characterized in that~~ Claim 1, wherein the channels ~~(6, 7, 8)~~ access jointly used memory areas in the external DRAM ~~(2)~~ and the assurance is given that no successive access operations to a jointly used memory area will arise.

8. (currently amended) Method according to ~~one of Claims 1 to 7, characterized in that~~ Claim 1, wherein a network ~~(5)~~ is provided which allows at least one channel ~~(6, 7, 8)~~ to access various memory banks ~~(21, 22, 23, 24)~~.

9. (currently amended) Method according to ~~one of Claims 1 to 8, characterized in that~~ Claim 1, wherein two access operations to a memory bank ~~(21, 22, 23, 24)~~ always have an access operation to another memory bank ~~(21, 22, 23, 24)~~ effected between them.

10. (currently amended) Method according to ~~one of Claims 1 to 9, characterized in that~~ Claim 1, wherein two successive access operations to a memory bank ~~(21, 22, 23, 24)~~ are permitted when they are made to the same row in the memory bank ~~(21, 22, 23, 24)~~.

11. (currently amended) Method according to ~~one of Claims 1 to 10, characterized in that~~ Claim 1, wherein the states of the memory banks ~~(21, 22, 23, 24)~~ are depicted by associated state machines ~~(41, 42, 43, 44)~~.

12. (currently amended) Method according to ~~one of Claims 1 to 11, characterized in that~~ Claim 1, wherein a plurality of DRAM modules are used and a chip enable signal is transmitted in order to select the desired module.

13. (currently amended) Memory controller for an IC with an external DRAM, where the external DRAM has at least one memory bank and communicates with the IC via two or more channels, ~~characterized in that~~ wherein it has a command scheduler which prioritizes the transmission of memory bank commands on the basis of a static priority allocation for commands and a dynamic priority allocation for channels.

14. (currently amended) Appliance for reading and/or writing to storage media, ~~characterized in that~~ wherein it uses a method according to ~~one of Claims 1 to 12~~ Claim 1 or has a memory controller ~~(1) according to Claim 13~~.